

REMARKS

Claims 1 and 3-18 are pending in the present application. Claims 1, 3-5, 8-15 and 17-18 have been amended to put them into better form. Claim 2 has been canceled without prejudice. Claims 19-20 have been added. The specification has been amended as requested by the Examiner. Reconsideration of the rejection of the application is respectfully requested in view of the following remarks.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 2-5 and 8-18 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1 and 3 have been amended to more clearly refer to the switching fabric that is controlled to produce a configuration that includes a plurality of MAAC kernels at least one AMAAC kernel. Claims 8 and 9 have been amended as suggested by the Examiner. As to claims 10, 13 and 16, these claims do recite interconnections between components and satisfy the requirements of § 112, second paragraph. For example, claim 10 recites MAAC and AMAAC kernels coupled to a data loader block. The claim simply recites these elements as ones to compute an IDTC as called for in the preamble. Claim 13 recites details of interconnections for the MAAC and AMAAC kernels. There is no requirement under § 112, second paragraph, to provide the detail of operation suggested in the Office Action. The claims definitively recite components to perform the function recited in the preamble. In view of the amendments and remarks, reconsideration and withdrawal of the rejection of claims 2, 4-5 and 8-18 under 35 U.S.C. § 112, second paragraph is respectfully requested.

The Claims Are Allowable Over the Prior Art

Claims 1-7 and 10-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6,526,430 to Hung et al. ("Hung"). Claims 1-2, 4 and 6-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6,327,602 to Kim ("Kim"). Claims 1-7 and 10-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 5,594,679 to Iwata ("Iwata"). Reconsideration of the rejection is respectfully requested in view of the following remarks.

The present invention concerns the use of Multiply-Add-Accumulator (MAAC) and Add-Multiply-Add-Accumulator (AMAAC) kernels to improved calculation processing. For example, claim 1, which has been amended to include the limitations of claim 2, recites a switch fabric that creates a plurality of MAAC kernels from a plurality of adders and multipliers for the switching between a non-downsampling mode of operation and a downsampling mode of operation. Claim 3, which depends from claim 1 adds the limitation of creating at least one AMAAC kernel from the plurality of adders and multipliers for the downsampling mode of operation.

First, with respect to the Iwata and Kim references, neither of these references refer to downsampling at all. Furthermore, though these references, as well as the Hung reference, disclose adding, multiplying, and switching components, there is no suggestion in Iwata, Kim, or Hung to configure them into MAAC and AMAAC kernels as recited in the pending claims. To be appropriate in a § 103(a) context, there must be some suggestion in the prior art to accomplish the claimed invention. Since MAAC and AMAAC kernels are not suggested and downsampling is not mentioned at all in the Iwata and Kim references, the rejection of the claims under § 103(a) is improper.

Since features of the pending claims are neither shown nor suggested by the Hung, Kim or Iwata references, reconsideration and withdrawal of the rejection of claims 1 and 3-18 under 35 U.S.C. § 103(a) is respectfully requested.

Conclusion

Applicant respectfully requests entry of the above amendments and favorable action in connection with this application.

The Examiner is invited to contact the undersigned to discuss any matter concerning this application.

The Office is hereby authorized to charge any fees required under 37 C.F.R. §§ 1.16 or 1.17 or credit any overpayment to Kenyon and Kenyon Deposit Account No. 11-0600.

Respectfully submitted,

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